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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/766,267	01/19/2001	Wen Tong	11962ROUS02U	1339

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EXAMINER	
NGUYEN, HANH N	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 06/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/766,267	TONG ET AL.	
	Examiner	Art Unit	
	Hanh Nguyen	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 May 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15 and 17-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *24* is/are allowed.

6)☒ Claim(s) *1-6,8-13,15 and 17-23* is/are rejected.

7)☒ Claim(s) *7 and 14* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

H Nguyen

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Applicant's Pre-Appeal Brief request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 and 8 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,917,603 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1 and 8 of the instant application discloses repeatedly and sequentially wirelessly transmitting time division multiplexed **slots** to the plurality of users; while claim 1 of the Patent discloses repeatedly and sequentially wirelessly transmitting time division multiplexed **superframes** to the plurality of users. Therefore, it would have been obvious to one skilled in the art to either transmit TDM slots or superframes to the plurality of users because transmitting the TDM slots can occupy in more than one frames.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 6, 8, 9, 13, 15, 21-23 are rejected under 35 USC 103(a) as being unpatentable over Mochizuki (US pat. No. 6,628,633 B1) in view of Raleigh et al. (US pat. 6,816,546 B1).

In claims 1, 8 and 15, Mochizuki discloses a method for operating a base station to wirelessly transmit data communications to a plurality of user terminals on a single wireless carrier (fig.1, base station wirelessly transmits data to the plurality of user terminals on a shared frequency band; col.6, lines 60-65).

Mochizuki discloses repeatedly and sequentially wirelessly transmitting time division multiplexed superframes (fig.5 discloses transmitting frames T1, T2, T4 and T5 including packets to terminals 1 and 2, col.8, lines 15-30); wherein each time division multiplex superframe comprises a plurality of high speed data frames (A combinations of frames T1, T2, T4 and T5 forms a superframe; see fig.5); wherein each of the high speed data frames carries at least one data communication (fig.5, frame T4 carries packet data for terminal 2; frame T5 carries data for terminal 1, col.8, lines 25-30); and wherein each of the high speed data frames includes a respective indication of at least one user terminal for which the at least one data commmunication is intended (see fig.3, destination address attached to the forward packet so

that mobile terminal checks the destination address to determine whether the forward packet is a packet of its own destination, see col.7, lines 30-35 & col.8, lines 60-67).

Mochizuki further discloses, in fig.5, frames T1, T2, T4 and T5 including assigned rates R1, R2 and R3, packet data and destination addresses are transmitted to terminals T1, T2; and the terminals have to determine for one of its possible assigned rates by monitoring all rates R1, R2 and R3. But there is not a respective indication of at least one data rate in the frames. Raleigh et al. discloses that a hub 102 (fig.1) assigns a frame to a particular data device (CPE 104), assigns a data rate for the particular device to employ in the frame; and transmits the frame and data rate assignment to the particular device (see col.3, lines 8-15; a respective indication of at least one data rate in a frame). It is clearly stated in Raleigh et al. that the data rate has been assigned to a particular data device and is included in the frame to be transmitted to the particular device. The particular data device, once receives the frame, does not have to monitor or determine whether the rate is its rate because the rate in the frame is its rate. Therefore, it would have been obvious to one ordinary skilled in the art to use the teaching of Raleigh et al. so that the transmitting frame in the Mochizuki includes a data rate for a particular device; and the particular device when receiving the frames, recognizes that the data rate included in the frame is its assigned rate. The motivation is to save the response time made from a mobile terminal; save power.

In claims 2 and 9, Mochizuki discloses, in Fig.5, supporting a plurality of data rates within high peed data frame (See col.8, lines 22-30).

In claims 6 and 13, Mochizuki discloses each of the high speed data frames of the superframe further includes a pilot signal; and a plurality of reverse link power control bits

intended for the plurality of user terminals (base station adjusts the transmission power of forward packet and sends a power control signal to the mobile terminal, see col.11, lines 30-42). Therefore, the power control signal is well-known in the art to include a pilot signal and power control bits.

In claims 21, 22 and 23 as explained by the rejection of claim 1, Mochizuki further discloses the base station (fig.8) comprising an antenna 501(antenna); circular 502 coupled to the antenna 501(RF unit coupled to the antenna); packet control apparatus 530 (at least one digital processor). Mochizuki does not explicitly disclose the digital procerssor (the packet control processor 530) executing software instructions causing the base station to perform the above steps. Raleigh et al. discloses the bandwidth management processor 210(fig.2) operates its software to forward assignments of data rate, transmission frame to CPE 104 (see col.5, lines 30-55). Therefore, it would have been obvious to one ordinary skilled in the art to program software instructions taught by Raleigh et al. into the system of Mochizuki in order to perform required claimed limitations.

Claims 3-5, 10-12, and 17-20 are rejected under 35 USC 103(a) as being unpatentble over Mochizuki (US pat. 6,628,633 B1), in view of Raleigh et al. (US Pat. 6,816,546 B1)., and further in view of Rydbeck et al. (US Pat. No.6,332,006 B1),

In claims 3, 4, 5, 10, 11 and 12, Mochizuki does not disclose different coding types, coding frames with Walsh codes; and modulation scheme within a frame. Rydbeck et al. discloses, in Fig.6a, a base station 610 encodes data message (high rate data), voice messages (low rate data) by a convolution coding, Walsh coding (coding messahe by first coding type, second coding type) before transmitting to subscriber 650. The encoded messages is Pi/4-

DQPSK modulated before being transmitted to the subscriber 650 (modulating scheme). See col.10, lines 5-25 & col.11, lines 35-45. Therefore, it would have been obvious to one ordinary skilled in the art to combine the encoding methods of Rydbeck et al. into Mochizuki in order to reduce error and protect confidential data from being detected by undesired receivers.

In claims 17 and 18, Mochizuki discloses receiving data of the frame; and determine that the data frame is intended for the user terminal in claim 15. Mochizuki does not disclose decoding a portion of superframe with Walsh codes; decoding data frame using a first coding type; decoding data in frame using a second coding type. Rydbeck et al. discloses, in Fig.6B, the subscriber 650 receiving encoded messages, demodulates the messages as in Fig.5B (first decoding type); decodes the messages by Walsh transform 652 (second decoding type). See col.10, lines 33-45. Therefore, it would have been obvious to one ordinary skill combine the decoding technics of Rydbeck et al. into Mochizuki in order to determine whether the transmitted data is intended to the terminal.

In claims 19 and 20, the limitations of these claims have been adressed in claims 1 and 15.

Allowable Subject Matter

Claims 7 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

In claims 7 and 14, the prior art does not disclose a high speed data frame including a secondary explicit data rate indicator indicating a user terminal of the plurality of user terminals for which a second portion of the high speed data frame is intended.

Claim 24 is allowed over the prior art.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

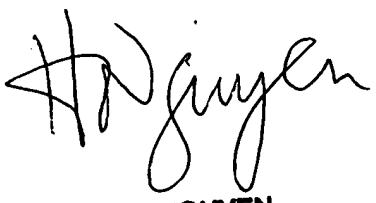
Stanwood et al. (US pat. 6,956,834 B2);

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The examiner can normally be reached on Monday-Friday from 8:30 to 4:30. The examiner can also be reached on alternate

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar, can be reached on 571 272 7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hanh Nguyen
Primary Examiner



HANH NGUYEN
PRIMARY EXAMINER